

**REMARKS**

Reconsideration of this application is requested. Claims 1-18 and 24-39 are in the case.

**I. THE 35 U.S.C. § 112, SECOND PARAGRAPH, REJECTION**

It is noted, with appreciation, that the previous rejections labeled (a)-(h) have been withdrawn in view of the arguments and amendments presented in the previous response. Claims 26-34 and new claim 38 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for the reasons stated in paragraph (i) bridging pages 2 and 3 of the Action. In that rejection, the Examiner alleges that the term “protected derivative” renders the scope of claims 26-34 and 38 unclear. It appears that the same rejection applies to claim 1 in light of the comments appearing in paragraph on page 4 of the Action.

Without conceding to the merit of the rejection, and in order to expedite prosecution, the claims have been amended to delete reference to “protected derivative”. This deletion is without prejudice to pursuing subject matter canceled from the present application in a separate continuing application. Withdrawal of the outstanding 35 U.S.C. § 112, second paragraph, rejection is now respectfully requested.

**II. THE 35 U.S.C. § 112, FIRST PARAGRAPH, REJECTION**

Claims 1-18, 24 and 39 stand rejected under 35 U.S.C. § 112, first paragraph, as an alleged lack of enablement grounds, for the reasons stated in paragraph 6 on page 4 of the Action. It appears this rejection centers on the language “protected derivative”. As discussed above, the claims have been amended to remove that language without prejudice. Withdrawal of the outstanding 35 U.S.C. § 112, first paragraph, rejection is now respectfully requested.

**III. THE 35 U.S.C. § 112, SECOND PARAGRAPH, REJECTION**

Claims 1-18, 24, 33 and 39 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite for the reasons detailed in paragraph 7 of the Action. The claims have been amended to deal with the points raised by the Examiner. The following comments are offered.

In subparagraph (a), the Examiner has noted a typographical error in the definition of R<sup>9</sup>. The carbon range is 1-4 as appearing in claim 1 as originally filed. An appropriate correction has been presented.

In subparagraph (b), a further typographical error has been noted in relation to the definition of B in the proviso labeled (c)(ii). The correct formula has been presented, as set forth in original claim 1.

In subparagraph (c), the Examiner asserts that the specification provides insufficient antecedent basis for claim 15, which the Examiner believes defines a phenyl ring having an “=O” substituent. This rejection is respectfully traversed.

Like the phenyl ring mentioned on page 112, line 2 of the specification as filed, the “=O” substituent mentioned at page 12, line 3 of the application as filed it is attached to group “Het”. This is clear from the wording of claim 15 as filed which, at the relevant part, reads as follows:

“Het<sup>2</sup> (optionally substituted by one or more substituents selected from ...phenyl) (which latter group is optionally substituted with one or more cyano groups), =O,...” (emphasis added).

In paragraphs (d) and (e), claim 33 has been rejected in light of the variable “R<sup>44</sup>”. The typographical error relating to that variable has been corrected, thereby obviating these two rejections.

Withdrawal of the outstanding 35 U.S.C. § 112, second paragraph, rejection is now believed to be in order. Such action is respectfully requested.

#### **IV. THE OBVIOUSNESS REJECTION**

Claims 1-15, 17, 18, 24, 25, 35-37 and 39 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent 4,959,373 to Lubisch et al. That rejection is respectfully traversed.

Lubisch discloses only 3,7-diazabicyclo[3.3.1]octane-3-carboxamide derivatives in which the 7-substituent on the 3,7-diazabicyclo[3.3.1]-octane ring

is a benzyl group (see Examples 21-26 of that document). Such compounds are explicitly excluded from the scope of Claim 1 (see proviso (a) at page 109, lines 9-10 of the application as filed).

Moreover, because every compound specifically disclosed in Lubisch is based upon 7-benzyl- or 7-(4-chlorobenzyl)-3,7-diazabicyclo-[3.3.1]octane (see Examples 1-37 of that document), one of ordinary skill would expect that the presence of an optionally substituted benzyl group at the 7-position of the 3,7-diazabicyclo[3.3.1]octane ring is essential to the provision of antiarrhythmic compounds. This is reinforced by the fact that Lubisch, at column 2, lines 24-26, expresses a preference only for compounds in which the group "Z" is methylene.

In light of the above, a person of ordinary skill would not have been motivated to arrive at compounds falling within the scope of the presently claimed invention based on the Lubisch disclosure. Absent any such motivation, it is clear that a *prima facie* case of obviousness is not generated by Lubisch. Withdrawal of the outstanding obviousness rejection based on that reference is accordingly respectfully requested.

#### V. DOUBLE PATENTING

Claims 33 and 35-37 stand rejected on alleged obviousness-type double patenting grounds as allegedly unpatentable over claims 20, 25, 27 and 28 of U.S. Patent 6,291,475 (it is assumed that the Examiner's reference to U.S. Patent 6,294,475 was a typographical error).

With regard to claim 33, the proviso recited at page 39, lines 15 and 16 of the application as originally filed has been added to the end of claim 33. Claim 33 as amended relates to compounds of formula XXIII in which the group R<sup>7</sup> represents aryl (other than phenyl) or Het<sup>2</sup>. Such compounds are neither disclosed nor suggested in the claims of U.S. Patent 6,291,475. Claim 33 is therefore not rendered obvious by the claims of that patent. Withdrawal of the obviousness-type double patenting rejection as it pertains to claim 33 is therefore respectfully requested.

With reference to claim 35, this claim relates to processes for the preparation of compounds of formulae X, XXIII and XXV. Since the compounds that are a result of the processes of claim 35 are non-obvious over the claims of U.S. Patent 6,291,475, it is clear that claim 35 does not constitute obviousness-type double patenting over the claims of that patent. Similar comments apply with respect to claims 36 and 37. Withdrawal of the obviousness-type double patenting rejection as it pertains to claim 35 is therefore respectfully requested.

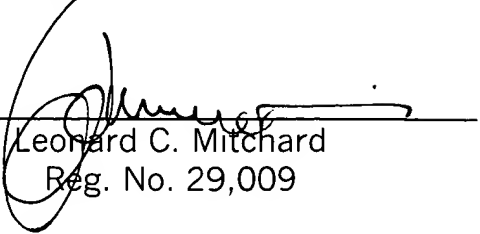
Allowance of the application is awaited.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned **“Version With Markings To Show Changes Made.”**

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

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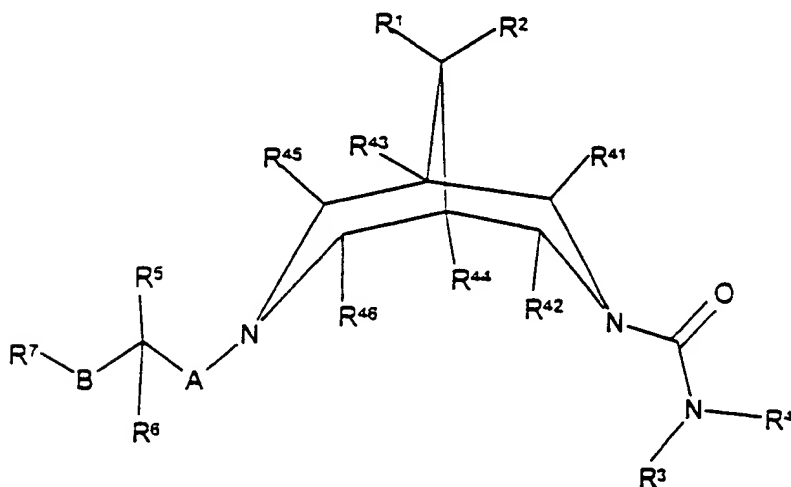
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

1 (Twice Amended). A compound of formula I,



wherein

$R^1$  and  $R^2$  independently represent H,  $C_{1-4}$  alkyl,  $OR^{2b}$  or  $N(R^{2c})R^{2d}$ , or together form  $-O-(CH_2)_2-O-$ ,  $-(CH_2)_3-$ ,  $-(CH_2)_4-$  or  $-(CH_2)_5-$ ;

$R^{2b}$ ,  $R^{2c}$  and  $R^{2d}$  independently represent H or  $C_{1-6}$  alkyl;

$R^3$  represents H,  $C_{1-6}$  alkyl or, together with  $R^4$ , represents  $C_{3-6}$  alkylene (which alkylene group is optionally interrupted by an O atom and/or is optionally substituted by one or more  $C_{1-3}$  alkyl groups);

$R^4$  represents H,  $C_{1-12}$  alkyl,  $C_{1-6}$  alkoxy (which latter two groups are both optionally substituted and/or terminated by one or more substituents selected from -OH, halo, cyano, nitro,  $C_{1-4}$  alkyl and/or  $C_{1-4}$  alkoxy),  $-(CH_2)_q$ -aryl,



$-(CH_2)_q$ -oxyaryl,  $-(CH_2)_q$ -Het<sup>1</sup> (which latter three groups are optionally substituted (at the  $-(CH_2)_q$ - part and/or the aryl/Het<sup>1</sup> part) by one or more substituents selected from -OH, halo, cyano, nitro,  $-C(O)R^{10}$ ,  $-C(O)OR^{11}$ ,  $-N(H)S(O)_2R^{11a}$ ,  $C_{1-6}$  alkyl and/or  $C_{1-6}$  alkoxy),  $-(CH_2)_qN(H)C(O)R^8$ ,  $-(CH_2)_qS(O)_2R^8$ ,  $-(CH_2)_qC(O)R^8$ ,  $-(CH_2)_qC(O)OR^8$ ,  $-(CH_2)_qC(O)N(R^9)R^8$  or, together with  $R^3$ , represents  $C_{3-6}$  alkylene (which alkylene group is optionally interrupted by an O atom and/or is optionally substituted by one or more  $C_{1-3}$  alkyl groups);

q represents 0, 1, 2, 3, 4, 5 or 6;

$R^8$  represents H,  $C_{1-6}$  alkyl, aryl (which latter group is optionally substituted and/or terminated by one or more substituents selected from -OH, halo, cyano, nitro,  $-C(O)R^{10}$ ,  $-C(O)OR^{11}$ ,  $-N(H)S(O)_2R^{11a}$ ,  $C_{1-6}$  alkyl and/or  $C_{1-6}$  alkoxy) or, together with  $R^9$ , represents  $C_{3-7}$  alkylene;

$R^9$  represents H, [ $C_{4-}$  alkyl]  $C_{1-4}$  alkyl or, together with  $R^8$ , represents  $C_{3-7}$  alkylene;

Het<sup>1</sup> represents a five to twelve-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

$R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$  or  $R^{46}$  independently represent H or  $C_{1-3}$  alkyl;

$R^5$  represents H, halo,  $C_{1-3}$  alkyl,  $-OR^{12}$ ,  $-N(R^{13})R^{12}$  or, together with  $R^6$ , represents =O;



$R^6$  represents H,  $C_{1-4}$  alkyl or, together with  $R^5$ , represents  $=O$ ;

$R^{12}$  represents H,  $C_{1-6}$  alkyl,  $-S(O)_2-C_{1-4}$ -alkyl,  $-C(O)R^{14}$ ,  $-C(O)OR^{14}$ ,  $-C(O)N(R^{15})R^{15a}$  or aryl (which latter group is optionally substituted and/or terminated by one or more substituents selected from -OH, halo, cyano, nitro,  $-C(O)R^{10}$ ,  $-C(O)OR^{11}$ ,  $-N(H)S(O)_2R^{11a}$ ,  $C_{1-6}$  alkyl and/or  $C_{1-6}$  alkoxy);

$R^{13}$  represents H or  $C_{1-4}$  alkyl;

$R^{14}$  represents H or  $C_{1-6}$  alkyl;

$R^{15}$  and  $R^{15a}$  independently represent H or  $C_{1-4}$  alkyl, or together represent  $C_{3-6}$  alkylene, optionally interrupted by an O atom;

A represents a single bond,  $C_{1-6}$  alkylene,  $-N(R^{16})(CH_2)_r-$  or  $-O(CH_2)_r-$  (in which two latter groups, the  $-(CH_2)_r-$  group is attached to the bispidine nitrogen atom);

B represents a single bond,  $C_{1-4}$  alkylene,  $-(CH_2)_nN(R^{17})-$ ,  $-(CH_2)_nS(O)_p-$ ,  $-(CH_2)_nO-$  (in which three latter groups, the  $-(CH_2)_n-$  group is attached to the carbon atom bearing  $R^5$  and  $R^6$ ),  $-C(O)N(R^{17})-$  (in which latter group, the  $-C(O)-$  group is attached to the carbon atom bearing  $R^5$  and  $R^6$ ),  $-N(R^{17})C(O)O(CH_2)_n-$ ,  $-N(R^{17})(CH_2)_n-$  (in which two latter groups, the  $N(R^{17})$  group is attached to the carbon atom bearing  $R^5$  and  $R^6$ ) or  $-(CH_2)_mC(H)(OH)(CH_2)_n-$  (in which latter group, the  $-(CH_2)_m-$  group is attached to the carbon atom bearing  $R^5$  and  $R^6$ );

m represents 1, 2 or 3;

n and r independently represent 0, 1, 2, 3 or 4;

p represents 0, 1 or 2;

R<sup>16</sup> and R<sup>17</sup> independently represent H or C<sub>1-4</sub> alkyl;

R<sup>7</sup> represents C<sub>1-6</sub> alkyl, aryl or Het<sup>2</sup>, all of which groups are optionally substituted and/or terminated (as appropriate) by one or more substituents selected from -OH, cyano, halo, amino, nitro, Het<sup>3</sup>, -C(O)R<sup>10</sup>, C(O)OR<sup>11</sup>, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, -N(H)S(O)<sub>2</sub>R<sup>18</sup>, -S(O)<sub>2</sub>R<sup>19</sup>, -OS(O)<sub>2</sub>R<sup>20</sup>, -N(H)C(O)N(H)R<sup>21</sup>, -C(O)N(H)R<sup>22</sup> and/or aryl (which latter group is optionally substituted by one or more cyano groups);

Het<sup>2</sup> and Het<sup>3</sup> independently represent a five to twelve-membered heterocyclic group containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

R<sup>18</sup>, R<sup>19</sup> and R<sup>20</sup> independently represent C<sub>1-6</sub> alkyl;

R<sup>21</sup> and R<sup>22</sup> independently represent H or C<sub>1-6</sub> alkyl (optionally terminated by cyano); and

R<sup>10</sup> and R<sup>11</sup> independently represent, at each individual occurrence, H or C<sub>1-6</sub> alkyl;

$R^{11a}$  represents, at each individual occurrence,  $C_{1-6}$  alkyl;

or a salt[, ] or solvate [or protected derivative] thereof;

provided that:

(a) when A and B are both single bonds and  $R^7$  is optionally substituted [10] aryl, then  $R^5$  and  $R^6$  do not both represent H;

(b) when A represents a single bond, then  $R^5$  and  $R^6$  do not together represent =O; and

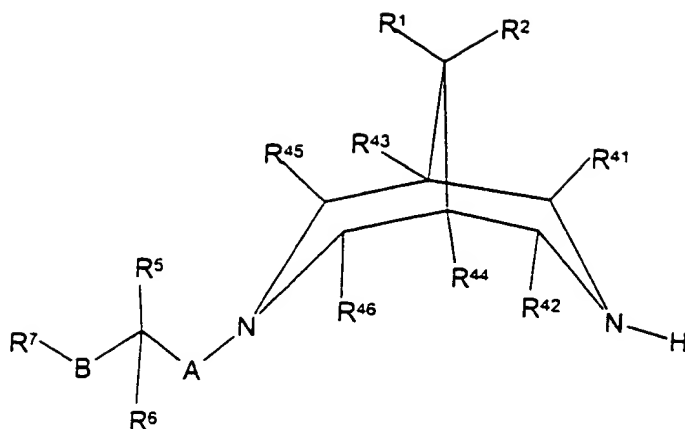
(c) when  $R^5$  represents  $\cdot OR^{12}$  or  $\cdot N(R^{13})R^{12}$ , then:-

(i) A does not represent  $\cdot N(R^{16})(CH_2)_r\cdot$  or  $\cdot O(CH_2)_r\cdot$ ; and/or

(ii) n does not represent 0 when B represents  $\cdot (CH_2)_n N(R^{17})\cdot$ ,  $[\cdot (CH_2)_n N(O)_p\cdot]$   
 ~~$\cdot (CH_2)_n S(O)_p\cdot$~~  or  $\cdot (CH_2)_n O\cdot$ .

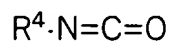
25. (Amended) A process for the preparation of a compound of formula I as defined in Claim 1 which comprises:

(a) for compounds of formula I in which  $R^3$  is H, reaction of a compound of formula II,



II

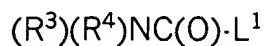
wherein  $R^1$ ,  $R^2$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and B are as defined in Claim 1 with a compound of formula III,



III

wherein  $R^4$  is as defined in Claim 1;

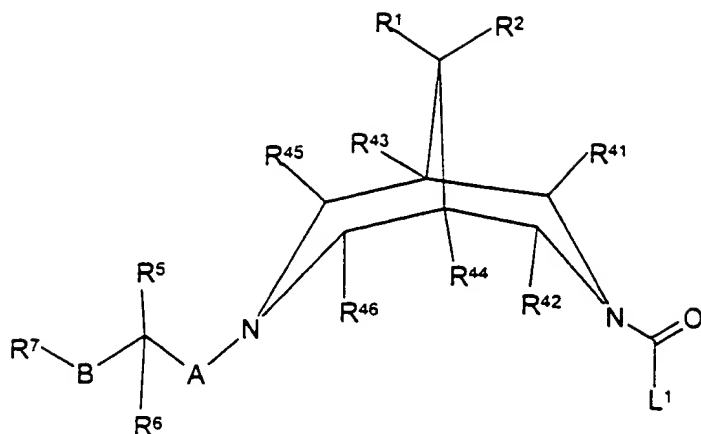
(b) reaction of a compound of formula II, as defined above, with a carbonic acid derivative of formula IV,



IV

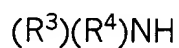
wherein  $L^1$  represents a leaving group and  $R^3$  and  $R^4$  are as defined in Claim 1;

(c) reaction of a compound of formula V,



V

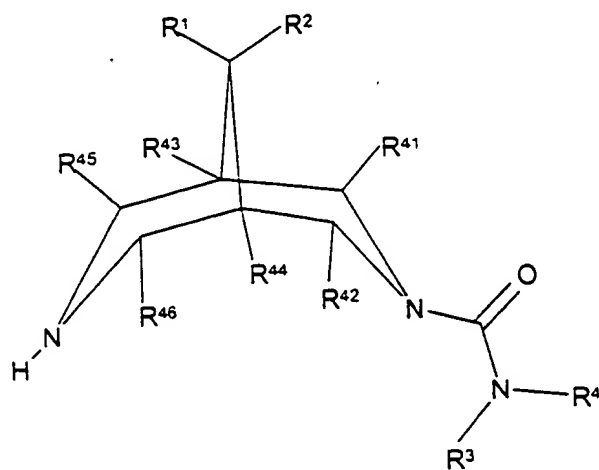
wherein  $L^1$  is as defined above and  $R^1$ ,  $R^2$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and B are as defined in Claim 1, with a compound of formula VA,



VA

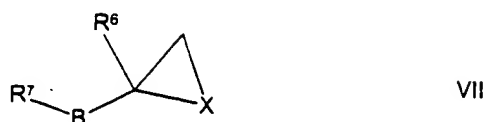
wherein  $R^3$  and  $R^4$  are as defined in Claim 1;

(d) for compounds of formula I in which A represents  $CH_2$  and  $R^5$  represents  $-OH$  or  $-N(H)R^{12}$ , reaction of a compound of formula VI,

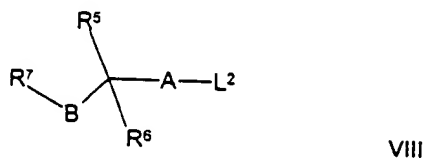


VI

wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$  and  $R^{46}$  are as defined in Claim 1,  
with a compound of formula VII,

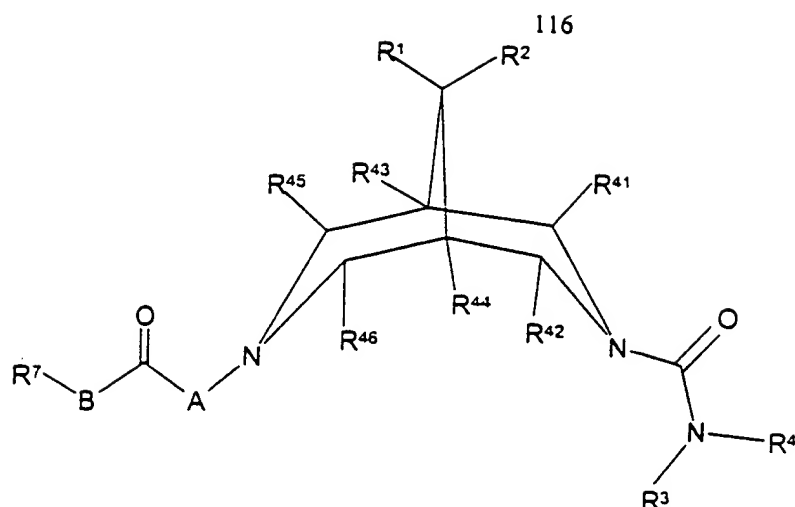


wherein X represents O or N( $R^{12}$ ) and  $R^6$ ,  $R^7$ ,  $R^{12}$  and B are as defined in Claim 1;  
(e) reaction of a compound of formula VI, as defined above, with a compound of formula VIII,



wherein  $L^2$  represents a leaving group and  $R^5$ ,  $R^6$ ,  $R^7$ , A and B are as defined in Claim 1;

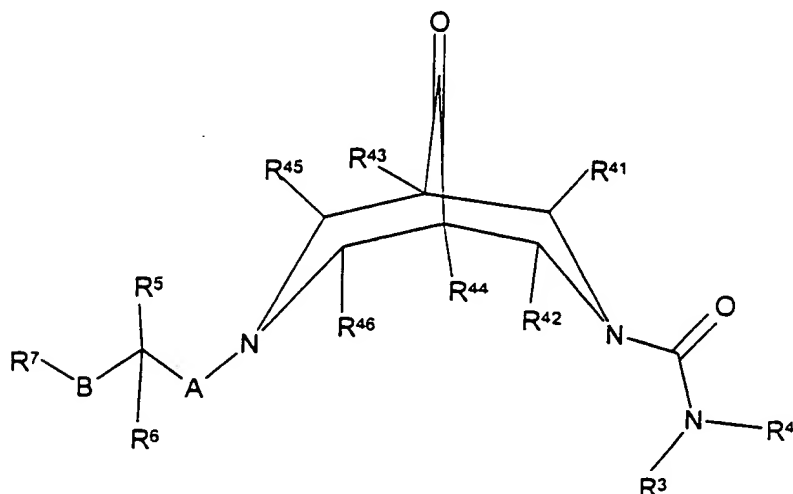
(t) for compounds of formula I in which  $R^5$  represents H or OH and  $R^6$  represents H, reduction of a compound of formula IX,



IX

wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^7$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and B are as defined in Claim 1;

(g) for compounds of formula I in which one of  $R^1$  and  $R^2$  represents H or OH and the other represents H, reduction of a corresponding compound of formula X,



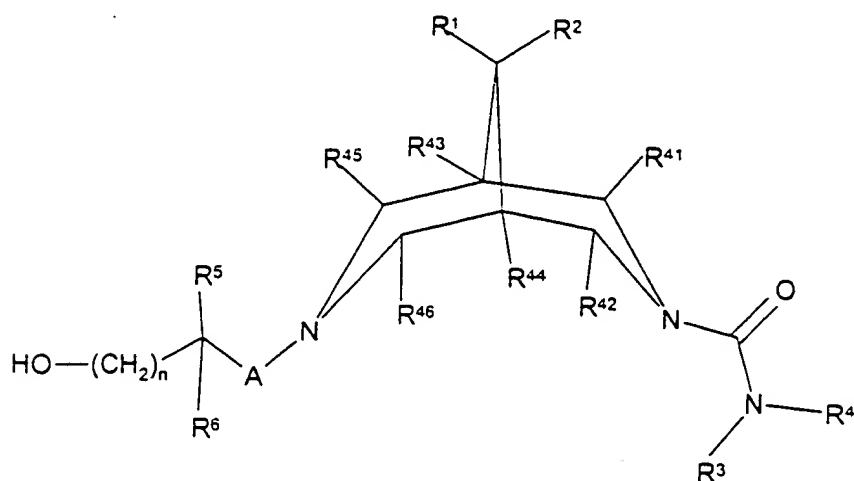
X

wherein  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and B are as defined in Claim 1;

(h) for compounds of formula I in which  $R^1$  and  $R^2$  together represent

$-\text{O}(\text{CH}_2)_2\text{O}-$ , reaction of a corresponding compound of formula X as defined above with ethane-1,2-diol;

(i) for compounds of formula I in which B represents  $-(\text{CH}_2)_n\text{O}-$ , reaction of a compound of formula XI,



XI

wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and n are as defined in Claim 1, with a compound of formula XIA,

$R^7\text{OH}$

XIA



in which  $R^7$  is as defined in Claim 1;

(j) for compounds of formula I which are bispidine-nitrogen N-oxide derivatives, oxidation of the corresponding bispidine nitrogen of a corresponding compound of formula I;

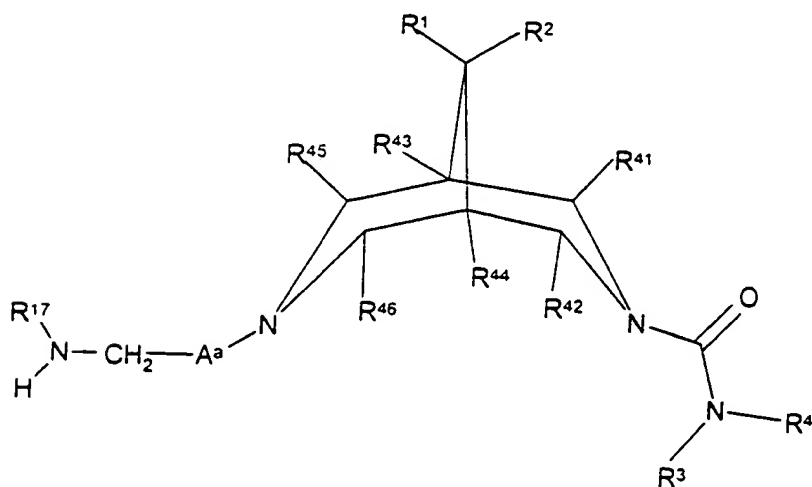
(k) for compounds of formula I which are  $C_{1-4}$  alkyl quaternary ammonium salt derivatives, in which the alkyl group is attached to a bispidine nitrogen, reaction, at the bispidine nitrogen, of a corresponding compound of formula I with a compound of formula XII,



XII

wherein  $R^b$  represents  $C_{1-4}$  alkyl and  $L^3$  is a leaving group;

(1) for compounds of formula I in which  $R^5$  and  $R^6$  represent H, A represents  $C_{1-6}$  alkylene and B represents  $-N(R^{17})(CH_2)_n-$ , reaction of a compound of formula XIII,



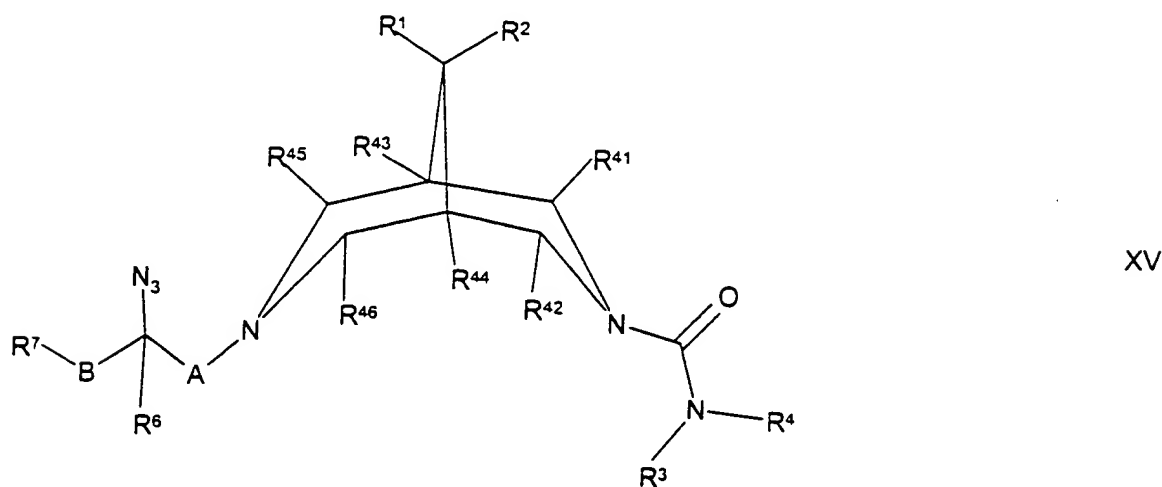
XIII

wherein A<sup>a</sup> represents C<sub>1-6</sub> alkylene and R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>41</sup>, R<sup>42</sup>, R<sup>43</sup>, R<sup>44</sup>, R<sup>45</sup>, R<sup>46</sup> and R<sup>17</sup> are as defined in Claim 1 with a compound of formula XIV,



wherein L<sup>2</sup> is as defined above and R<sup>7</sup> and n are as defined in Claim 1;

(m) for compounds of formula I in which R<sup>5</sup> represents -NH<sub>2</sub>, reduction of a corresponding compound of formula XV,



wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>6</sup>, R<sup>7</sup>, R<sup>41</sup>, R<sup>42</sup>, R<sup>43</sup>, R<sup>44</sup>, R<sup>45</sup>, R<sup>46</sup>, A and B are as defined in Claim 1;

(n) for compounds of formula I in which R<sup>5</sup> represents



$\cdot\text{N}(\text{R}^{13})\text{C}(\text{O})\text{NH}(\text{R}^{15})$ , reaction of a corresponding compound of formula I in which  $\text{R}^5$  represents  $\cdot\text{N}(\text{R}^{13})\text{H}$  with a compound of formula XVI,



wherein  $\text{R}^{15}$  is as defined in Claim 1;

(o) for compounds of formula I in which  $\text{R}^5$  represents  $\cdot\text{N}(\text{R}^{13})\text{C}(\text{O})\text{R}^{14}$ , reaction of a corresponding compound of formula I in which  $\text{R}^5$  represents  $\cdot\text{N}(\text{R}^{13})\text{H}$  with a compound of formula XVII,



wherein  $\text{R}^x$  represents a suitable leaving group and  $\text{R}^{14}$  is as defined in Claim 1;

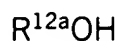
(p) for compounds of formula I in which  $\text{R}^5$  represents  $\cdot\text{N}(\text{H})\text{R}^{12}$ , wherein  $\text{R}^{12}$  is as defined in Claim 1 provided that it does not represent H, reaction of a corresponding compound of formula I, in which  $\text{R}^5$  represents  $\cdot\text{NH}_2$  with a compound of formula XVIII,



wherein  $\text{R}^{12a}$  represents  $\text{R}^{12}$  as defined in Claim 1 provided that it does not represent H and  $\text{L}^1$  is as defined above;

(q) for compounds of formula I in which  $\text{R}^5$  represents  $\cdot\text{OR}^{12}$  in which  $\text{R}^{12}$  represents  $\text{C}_{1-6}$  alkyl or optionally substituted aryl, reaction of a corresponding compound of formula I in which  $\text{R}^5$  represents  $\cdot\text{OH}$  with a compound of formula

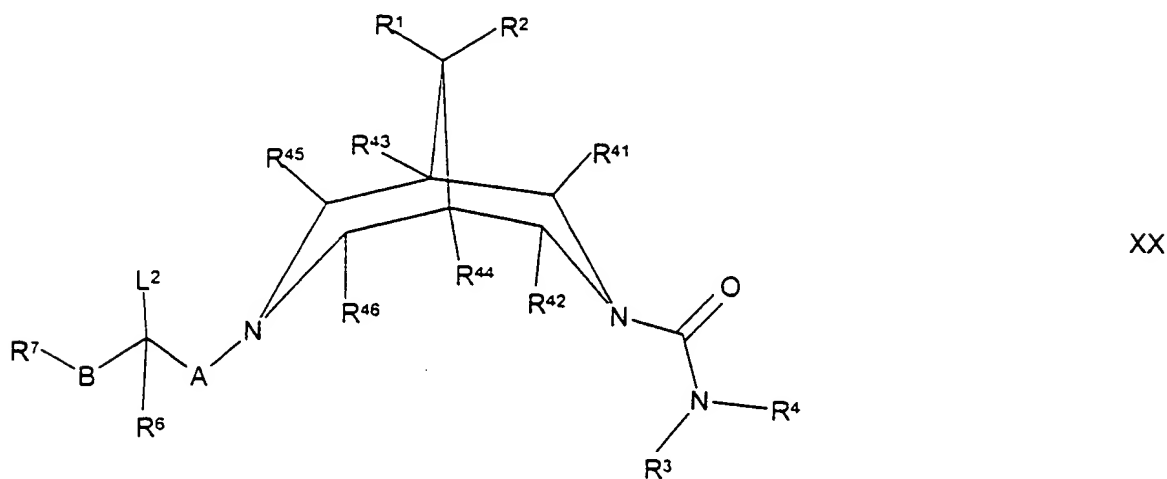
XIX,



XIX

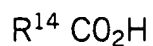
wherein  $R^{12a}$  represents  $C_{1-6}$  alkyl or optionally substituted aryl;

(r) for compounds of formula I in which  $R^5$  represents  $-OR^{12}$ , in which  $R^{12}$  represents  $C_{1-6}$  alkyl or optionally substituted aryl, reaction of a compound of formula XX,



wherein  $L^2$  is as defined above and  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^6$ ,  $R^7$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and B are as defined in Claim 1 with a compound of formula XIX as defined above;

(s) for compounds of formula I in which  $R^5$  represents  $OR^{12}$  and  $R^{12}$  represents  $C(O)R^{14}$ , reaction of a corresponding compound of formula I in which  $R^5$  represents OH with a compound of formula XXI,



XXI

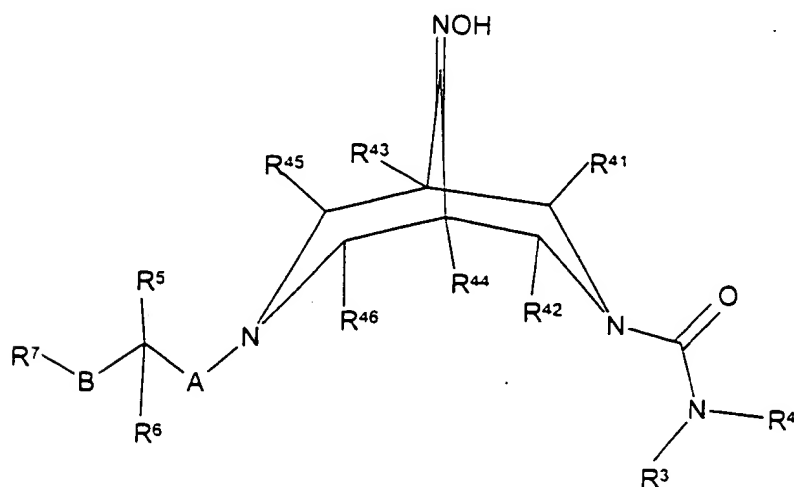
wherein  $R^{14}$  is as defined in Claim 1;

(t) for compounds of formula I in which  $R^5$  represents halo, substitution of a corresponding compound of formula I in which  $R^5$  represents  $-OH$ , using an appropriate halogenating agent;

(u) for compounds of formula I in which  $R^3$  and/or  $R^4$  as appropriate represent alkyl groups, alkylation of a corresponding compound of formula I, in which  $R^3$  and/or  $R^4$  (as appropriate) represent H;

(v) conversion of one  $R^4$  group to another;

(w) for compounds of formula I in which one of  $R^2$  and  $R^3$  represents  $-NH_2$  and the other represents H, reduction of a compound of formula XXIA,



XXIA

wherein  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and B are as defined in Claim 1;

(x) for compounds of formula I in which one or both of  $R^1$  and  $R^2$  represent  $-N(R^{2c})R^{2d}$  in which one or both of  $R^{2c}$  and  $R^{2d}$  represents  $C_{1-6}$  alkyl, alkylation of a corresponding compound of formula I in which  $R^1$  and/or  $R^2$  represent  $-N(R^{2c})R^{2d}$  (as appropriate) in which  $R^{2c}$  and/or  $R^{2d}$  (as appropriate) represent H, using a compound of formula XXIB,



XXIB

wherein  $R^{2e}$  represents  $C_{1-6}$  alkyl and  $L^1$  is as defined above; or

(y) conversion of one substituent on  $R^7$  to another[;or

(z) deprotection of a protected derivative of a compound of formula I as defined in Claim 1].

26. (Amended) A compound of formula II, as defined in Claim 25, [or a protected derivative thereof,] provided that  $R^7$  does not represent optionally substituted

phenyl.

27. (Amended) A compound of formula V, as defined in Claim 25, [or a protected derivative thereof,] provided that R<sup>7</sup> does not represent optionally substituted phenyl.

28. (Amended) A compound of formula X as defined in Claim 25, [or a protected derivative thereof].

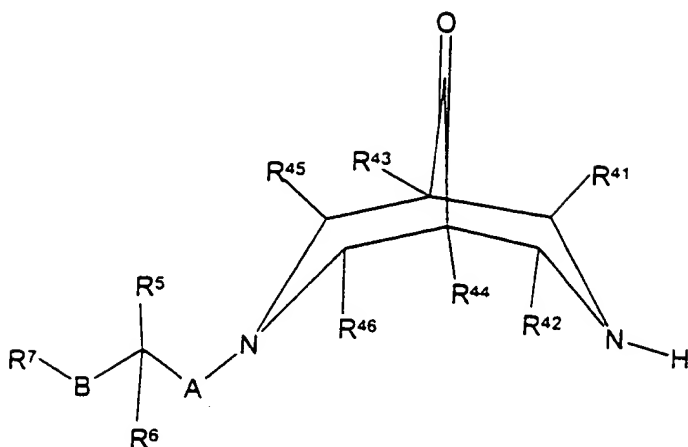
29. (Amended) A compound of formula XI as defined in Claim 25, [or a protected derivative thereof].

30. (Amended) A compound of formula XIII, as defined in Claim 25, [or a protected derivative thereof].

31. (Amended) A compound of formula XV, as defined in Claim 25, [or a protected derivative thereof].

32. (Amended) A compound of formula XX, as defined in Claim 25, [or a protected derivative thereof].

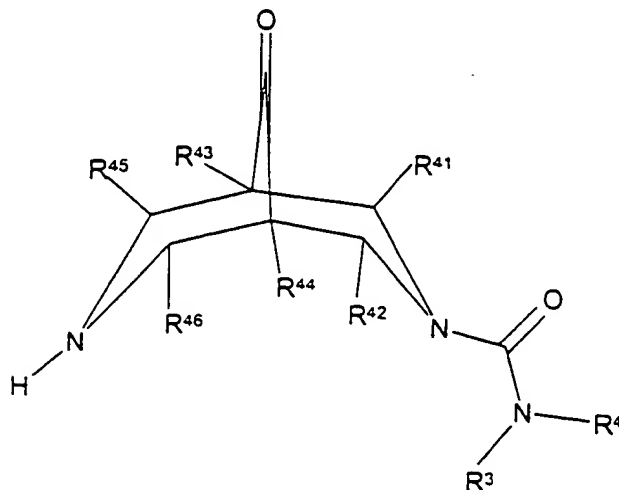
33. (Twice Amended) A compound of formula XXIII,



XXIII

wherein  $R^5$ ,  $R^6$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$ ,  $R^{46}$ , A and B are as defined in Claim 1,  $R^7$  represents aryl or Het<sup>2</sup>, all of which groups are optionally substituted and/or terminated (as appropriate) by one or more substituents selected from -OH, cyano, halo, amino, nitro, Het<sup>3</sup>, -C(O) $R^{10}$ , C(O)OR<sup>11</sup>, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, -N(H)S(O)<sub>2</sub>R<sup>18</sup>, -S(O)<sub>2</sub>R<sup>19</sup>, -OS(O)<sub>2</sub>R<sup>20</sup>, -N(H)C(O)N(H)R<sup>21</sup>, -C(O)N(H)R<sup>22</sup> and/or aryl (which latter group is optionally substituted by one or more cyano groups); [or a protected derivative thereof] provided that  $R^7$  does not represent optionally substituted phenyl.

34. (Amended) A compound of formula XXV,



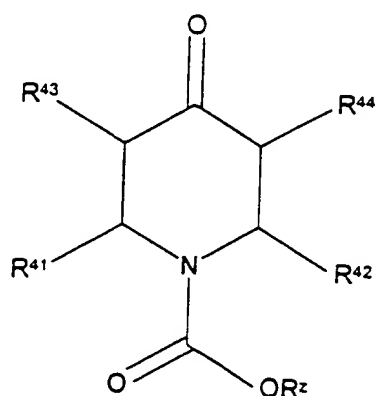
XXV



wherein  $R^3$ ,  $R^4$ ,  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$ ,  $R^{45}$  and  $R^{46}$  are as defined in Claim 1[, or a protected derivative thereof].

35. (Amended) A process for the preparation of a compound of formula X, of formula XXIII, or of formula XXV (in which, in all cases,  $R^{45}$  and  $R^{46}$  both represent H), which comprises (as appropriate) reaction of either:

(i) a compound of formula XXXV,



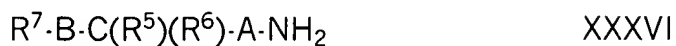
XXXV

wherein  $R^z$  represents  $\text{C}_{1-10}$  alkyl or  $\text{C}_{1-3}$  alkylaryl and  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$  and  $R^{44}$  are as

defined in Claim 1, or

(ii) 4-piperidone [(or a protected derivative thereof,) with (as appropriate) either:

(1) a compound of formula XXXVI,



wherein  $R^5$ ,  $R^6$ ,  $R^7$ , A and B are as defined in Claim 1, or

(2)  $NH_3$  [(or a protected derivative thereof)],

in all cases in the presence of a formaldehyde and, in the case of compounds of formulae X and XXV, followed by conversion of the  $C(O)OR^z$  group in the resultant intermediate to a  $C(O)N(R^3)(R^4)$  group.